# 2.11 Pictograms: 1-hour Pack

EDEXCEL 1ST0 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** A tally chart shows the lunches chosen by pupils. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| red | ||||/ ||||/ ||||/ || |
| blue | ||||/ ||||/ || |
| silver | ||||/ ||||/ || |
| black | ||||/ ||||/ ||||/ |||| |
| white | ||||/ | |

(a) Write down the frequency for each category.

(b) Work out the total frequency.

(c) What fraction of the total is blue? Give your answer in its simplest form.

**(Total for Question 1 is 4 marks)**


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**2** A pictogram shows the number of books borrowed. Each full symbol represents 20 books.

| Category | Symbols drawn |
|---|---|
| Cafe A | 6 symbols and a half symbol |
| Cafe B | 6 symbols |
| Cafe C | 4 symbols |
| Cafe D | 6 symbols |

(a) How many books does Cafe B represent?

(b) Work out the total number of books for all 4 categories.

**(Total for Question 2 is 4 marks)**

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**3** A tally chart shows the colours of cars passing a school. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| pizza | ||||/ ||||/ || |
| pasta | ||||/ ||||/ | |
| curry | ||||/ | |
| salad | ||||/ ||||/ |

(a) Write down the frequency for each category.

(b) Work out the total frequency.

(c) What fraction of the total is pasta? Give your answer in its simplest form.

**(Total for Question 3 is 4 marks)**


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**4** A tally chart shows the colours of cars passing a school. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| walk | ||||/ ||||/ ||||/ ||| |
| bus | ||||/ ||||/ ||||/ | |
| car | ||||/ ||||/ || |
| cycle | ||||/ ||||/ | |

(a) Write down the frequency for each category.

(b) Work out the total frequency.

(c) What fraction of the total is car? Give your answer in its simplest form.

**(Total for Question 4 is 4 marks)**

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**5** A pictogram shows the number of books borrowed. Each full symbol represents 10 books.

| Category | Symbols drawn |
|---|---|
| Monday | 2 symbols and a half symbol |
| Tuesday | 2 symbols |
| Wednesday | 1 symbols and a half symbol |
| Thursday | 4 symbols |
| Friday | 2 symbols |

(a) How many more books are shown for Wednesday than for Thursday?

(b) Write the number for Thursday as a fraction of the total, in its simplest form.

**(Total for Question 5 is 4 marks)**


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**6** A tally chart shows the sports chosen at a club. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| football | |||| |
| netball | ||||/ ||||/ |||| |
| hockey | ||||/ ||||/ |
| tennis | |||| |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is hockey? Give your answer in its simplest form.

**(Total for Question 6 is 4 marks)**

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**7** A tally chart shows the sports chosen at a club. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| red | ||||/ ||||/ ||||/ ||| |
| blue | |||| |
| silver | ||||/ ||||/ ||||/ |||| |
| black | ||||/ ||||/ ||| |
| white | ||||/ ||||/ |||| |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is red? Give your answer in its simplest form.

**(Total for Question 7 is 4 marks)**


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**8** A pictogram shows the number of cars sold by a garage. Each full symbol represents 2 cars.

| Category | Symbols drawn |
|---|---|
| Cafe A | 2 symbols and a half symbol |
| Cafe B | 5 symbols and a half symbol |
| Cafe C | 4 symbols and a half symbol |
| Cafe D | 4 symbols and a half symbol |
| Cafe E | 6 symbols and a half symbol |

(a) How many cars does Cafe B represent?

(b) Work out the total number of cars for all 5 categories.

**(Total for Question 8 is 4 marks)**

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**9** A tally chart shows the sports chosen at a club. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| red | ||||/ ||||/ ||||/ |
| blue | ||||/ ||||/ || |
| silver | ||||/ ||| |
| black | || |
| white | ||||/ | |

(a) Write down the frequency for each category.

(b) Work out the total frequency.

(c) What fraction of the total is silver? Give your answer in its simplest form.

**(Total for Question 9 is 4 marks)**


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**10** A tally chart shows the types of weather on days in a term. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| rain | ||||/ ||||/ || |
| sun | ||||/ ||| |
| cloud | ||||/ ||||/ ||| |
| snow | || |

(a) Write down the frequency for each category.

(b) Work out the total frequency.

(c) What fraction of the total is rain? Give your answer in its simplest form.

**(Total for Question 10 is 4 marks)**

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**11** A pictogram shows the number of cars sold by a garage. Each full symbol represents 50 cars.

| Category | Symbols drawn |
|---|---|
| Year 7 | 3 symbols |
| Year 8 | 5 symbols and a half symbol |
| Year 9 | 1 symbols and a half symbol |
| Year 10 | 4 symbols and a half symbol |
| Year 11 | 3 symbols |

Next week the number for Year 10 is 250 cars. How many symbols should be drawn for Year 10 next week? Give your answer as a whole number of symbols and halves.

**(Total for Question 11 is 2 marks)**


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**12** A tally chart shows the lunches chosen by pupils. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| red | ||||/ ||||/ ||| |
| blue | ||| |
| silver | ||||/ ||||/ \| |
| black | ||||/ || |
| white | ||||/ ||||/ |||| |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is silver? Give your answer in its simplest form.

**(Total for Question 12 is 4 marks)**

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**13** A tally chart shows the types of weather on days in a term. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| walk | ||||/ |
| bus | ||||/ \| |
| car | ||||/ ||||/ ||||/ \| |
| cycle | ||||/ ||| |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is car? Give your answer in its simplest form.

**(Total for Question 13 is 4 marks)**


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**14** A tally chart shows the lunches chosen by pupils. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| football | ||||/ ||||/ |
| netball | ||||/ | |
| hockey | ||||/ ||||/ | |
| tennis | ||| |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is football? Give your answer in its simplest form.

**(Total for Question 14 is 4 marks)**

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**15** A tally chart shows the colours of cars passing a school. In the tally, each ||||/ stands for a group of 5.

| Category | Tally |
|---|---|
| walk | ||||/ ||| |
| bus | ||||/ ||||/ | |
| car | ||||/ ||||/ ||| |
| cycle | ||||/ ||||/ ||||/ |

(a) Write down the frequency for each category.
(b) Work out the total frequency.
(c) What fraction of the total is bus? Give your answer in its simplest form.

**(Total for Question 15 is 4 marks)**


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# Mark scheme · 2.11 Pictograms: 1-hour Pack

## Question 1

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 17, 12, 12, 19, 6 cao | **A1** |
| 66 cao | **B1** |
| 2/11 cao | **B1** |

**Answer: (a) 17, 12, 12, 19, 6; (b) 66; (c) 2/11**

## Question 2

| | |
|---|---|
| 6 x 20 | **M1** |
| 120 cao | **A1** |
| adds all the values | **M1** |
| 450 cao | **A1** |

**Answer: (a) 120; (b) 450**

## Question 3

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 12, 11, 6, 10 cao | **A1** |
| 39 cao | **B1** |
| 11/39 cao | **B1** |

**Answer: (a) 12, 11, 6, 10; (b) 39; (c) 11/39**

## Question 4

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 18, 16, 12, 11 cao | **A1** |
| 57 cao | **B1** |
| 4/19 cao | **B1** |

**Answer: (a) 18, 16, 12, 11; (b) 57; (c) 4/19**

## Question 5

| | |
|---|---|
| values for both categories found using the key | **M1** |
| 25 (negative, so fewer) | **A1** |
| 40 / 120 | **M1** |
| 1/3 cao | **A1** |

**Answer: (a) -25; (b) 1/3**

## Question 6

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 4, 14, 10, 4 cao | **A1** |
| 32 cao | **B1** |
| 5/16 cao | **B1** |

**Answer: (a) 4, 14, 10, 4; (b) 32; (c) 5/16**

## Question 7

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 18, 4, 19, 13, 14 cao | **A1** |
| 68 cao | **B1** |
| 9/34 cao | **B1** |

**Answer: (a) 18, 4, 19, 13, 14; (b) 68; (c) 9/34**

## Question 8

| | |
|---|---|
| 5.5 x 2 | **M1** |
| 11 cao | **A1** |
| adds all the values | **M1** |
| 47 cao | **A1** |

**Answer: (a) 11; (b) 47**

## Question 9

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 15, 12, 8, 2, 6 cao | **A1** |
| 43 cao | **B1** |
| 8/43 cao | **B1** |

**Answer: (a) 15, 12, 8, 2, 6; (b) 43; (c) 8/43**

## Question 10

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 12, 8, 13, 2 cao | **A1** |
| 35 cao | **B1** |
| 12/35 cao | **B1** |

**Answer: (a) 12, 8, 13, 2; (b) 35; (c) 12/35**

## Question 11

| | |
|---|---|
| 250 / 50 | **M1** |
| 5 symbols cao | **A1** |

**Answer: 5 symbols**

## Question 12

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 13, 3, 11, 7, 14 cao | **A1** |
| 48 cao | **B1** |
| 11/48 cao | **B1** |

**Answer: (a) 13, 3, 11, 7, 14; (b) 48; (c) 11/48**

## Question 13

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 5, 6, 16, 8 cao | **A1** |
| 35 cao | **B1** |
| 16/35 cao | **B1** |

**Answer: (a) 5, 6, 16, 8; (b) 35; (c) 16/35**

## Question 14

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 10, 6, 11, 3 cao | **A1** |
| 30 cao | **B1** |
| 1/3 cao | **B1** |

**Answer: (a) 10, 6, 11, 3; (b) 30; (c) 1/3**

## Question 15

| | |
|---|---|
| counts groups of 5 plus the extra strokes | **M1** |
| frequencies 8, 11, 13, 15 cao | **A1** |
| 47 cao | **B1** |
| 11/47 cao | **B1** |

**Answer: (a) 8, 11, 13, 15; (b) 47; (c) 11/47**


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